

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of the claims in the application:

- 1 1. (Currently Amended) A reliability buffering method associated with a project planning model having project plan data and having a plurality of activities, wherein each one of the plurality of activities has one or more activity time precedence relationships, comprising:
 - 4 adding activity characteristics data to the project plan data;
 - 5 generating a reliability buffer duration value;
 - 6 adding the reliability buffer duration value corresponding to the project plan data; and
 - 7 placing a reliability buffer having a time duration determined in accordance with the
 - 8 reliability buffer duration value in front of and associated with a downstream activity.
- 1 2. (Original) The reliability buffering method of claim 1, further comprising:
 - 2 adding activity relationship data to the project plan data.
- 1 3. (Original) The reliability buffering method of claim 1, further comprising:
 - 2 altering the one or more activity time precedence relationships.
- 1 4. (Currently Amended) A reliability buffering method associated with a project planning model having project plan data, having a project schedule, and having a plurality of activities, comprising:
 - 4 selecting a downstream activity from among the plurality of activities;
 - 5 adding activity relationship data associated with the downstream activity and with at least
 - 6 one upstream activity to the project plan data;
 - 7 adding activity characteristics data associated with the downstream activity to the project
 - 8 plan data; and

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9 placing a reliability time-buffer in a buffer time precedence relationship with the
10 downstream activity to provide a buffered downstream activity.

1 5. (Currently Amended) The reliability buffering method of claim 4, wherein adding activity
2 relationship data comprises:

3 adding a downstream sensitivity value associated with the activity time precedence
4 relationship to the project plan data.

1 6. (Original) The reliability buffering method of claim 4, wherein adding activity characteristics
2 data comprises:

3 adding an activity reliability value to the project plan data.

1 7. (Original) The reliability buffering method of claim 4, wherein adding activity characteristics
2 data comprises:

3 adding an activity production rate value to the project plan data.

1 8. (Original) The reliability buffering method of claim 4, wherein the buffer time precedence
2 relationship is finish to start.

1 9. (Currently Amended) The reliability buffering method of claim 4, further comprising:

2 generating a reliability buffer duration value associated with the reliability buffer and
3 corresponding to the project plan data; and

4 generating an activity time precedence relationship between the buffered downstream
5 activity and the at least one upstream activity, corresponding to the project plan data; and

6 adding the reliability buffer duration value and the activity time precedence relationship
7 to the project plan data to provide an initial reliability buffer project plan.

1 10. (Original) The reliability buffering method of claim 9, wherein the activity time precedence
2 relationship is selected from the group consisting of finish to start, finish to finish, start to start,
3 and start to finish.

1 11. (Original) The reliability buffering method of claim 9, wherein generating the reliability
2 buffer duration value comprises:

3 selecting one or more upstream activities associated with the downstream activity from
4 among the plurality of activities; and
5 generating a reliability buffer duration value that reduces a simulated schedule delay to
6 the project schedule that occurs due to simulated schedule delays of respective ones of the one or
7 more upstream activities, and that increases a simulated schedule advance to the project schedule
8 that occurs due to simulated schedule advances of respective ones of the one or more upstream
9 activities.

1 12. (Currently Amended) The reliability buffering method of claim 11, wherein generating the
2 reliability buffer duration value comprises:

3 selecting a plurality of reliability buffer duration values; and
4 for each of the plurality of reliability buffer duration values,
5 generating a simulated project schedule and a simulated project cost; and
6 analyzing the simulated project schedules and the simulated project costs
7 associated with the plurality of reliability buffer duration values; and
8 selecting the reliability buffer duration value and the associated project schedule
9 corresponding to a smallest simulated project schedule or associated with a smallest simulated
10 project cost.

1 13. (Original) The reliability buffering method of claim 9, wherein generating the activity time
2 precedence relationship comprises:

3 selecting a time precedence relationship from the group consisting of a finish to start
4 relationship, a finish to finish relationship, a start to finish relationship, and a finish to start
5 relationship;

6 selecting one or more upstream activities associated with the downstream activity from
7 among the plurality of activities; and

8 generating a reliability buffer lead or lag value that reduces a simulated schedule delay to
9 the project schedule that occurs due to simulated schedule delays of respective ones of the one or
10 more upstream activities, and that increases a simulated schedule advance to the project schedule
11 that occurs due to simulated schedule advances of respective ones of the one or more upstream
12 activities.

1 14. (Original) The reliability buffering method of claim 9, further comprising:
2 adding policy data to the project plan data.

1 15. (Previously Presented) The reliability buffering method of claim 14, wherein adding policy
2 data comprises:

3 adding at least one of:
4 a manpower availability versus time value;
5 a overtime and flexible headcount control value,
6 a time buffer,
7 a thoroughness of quality control value;
8 a hiring time control value, or
9 a request for information (RFI) time duration value to the project plan data.

1 16. (Original) The reliability buffering method of claim 9, further comprising:
2 updating the project plan data to provide an updated reliability buffer project plan.

1 17. (Currently Amended) A project management system comprising:
2 a project data processor to provide project plan data; and

3 a reliability buffer processor adapted to receive the project plan data and to generate a
4 project plan with reliability buffers, each one of the reliability buffers associated with a
5 respective downstream activity.

1 18. (Previously Presented) The project management system of claim 17 further including a
2 project plan processor adapted to provide conventional project plan data to the project data
3 processor, and wherein the project data processor is adapted to receive the conventional project
4 plan data and to provide the project plan data.